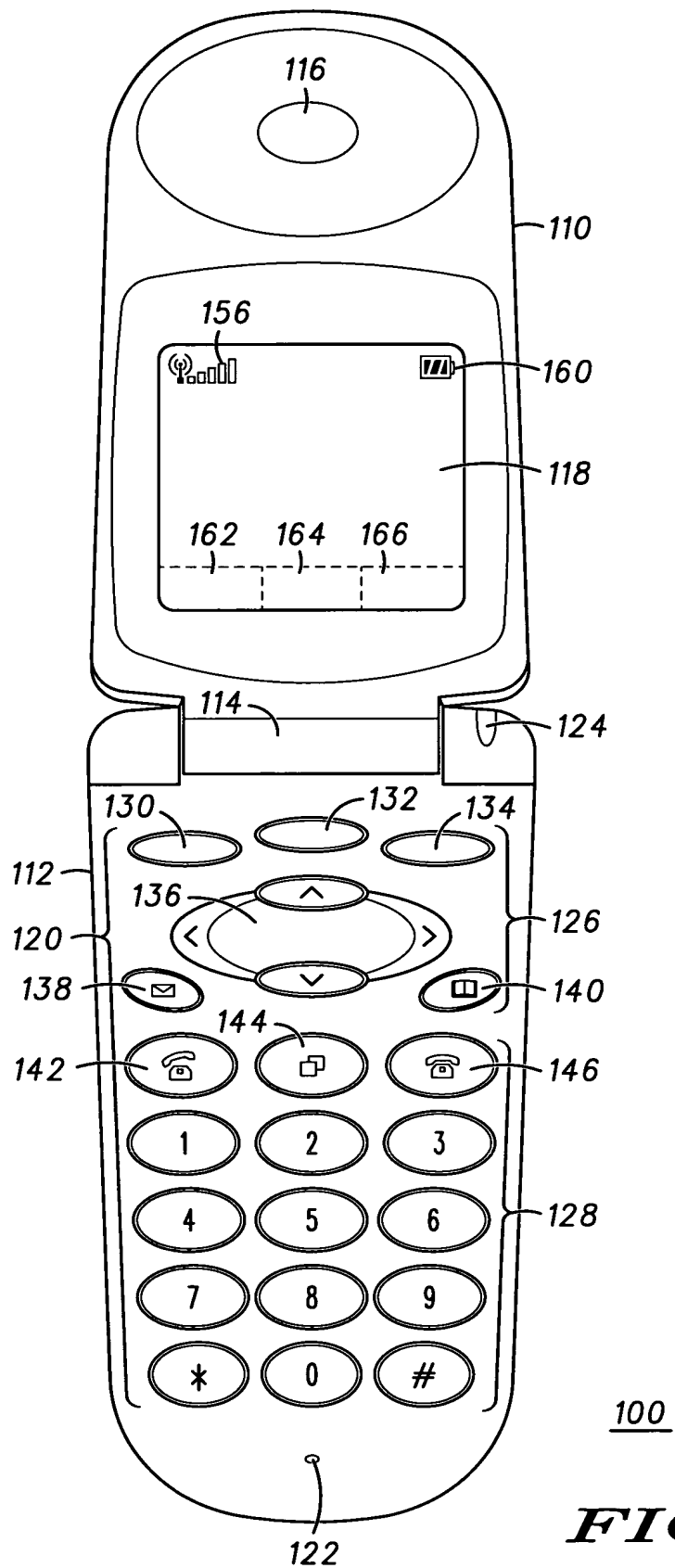
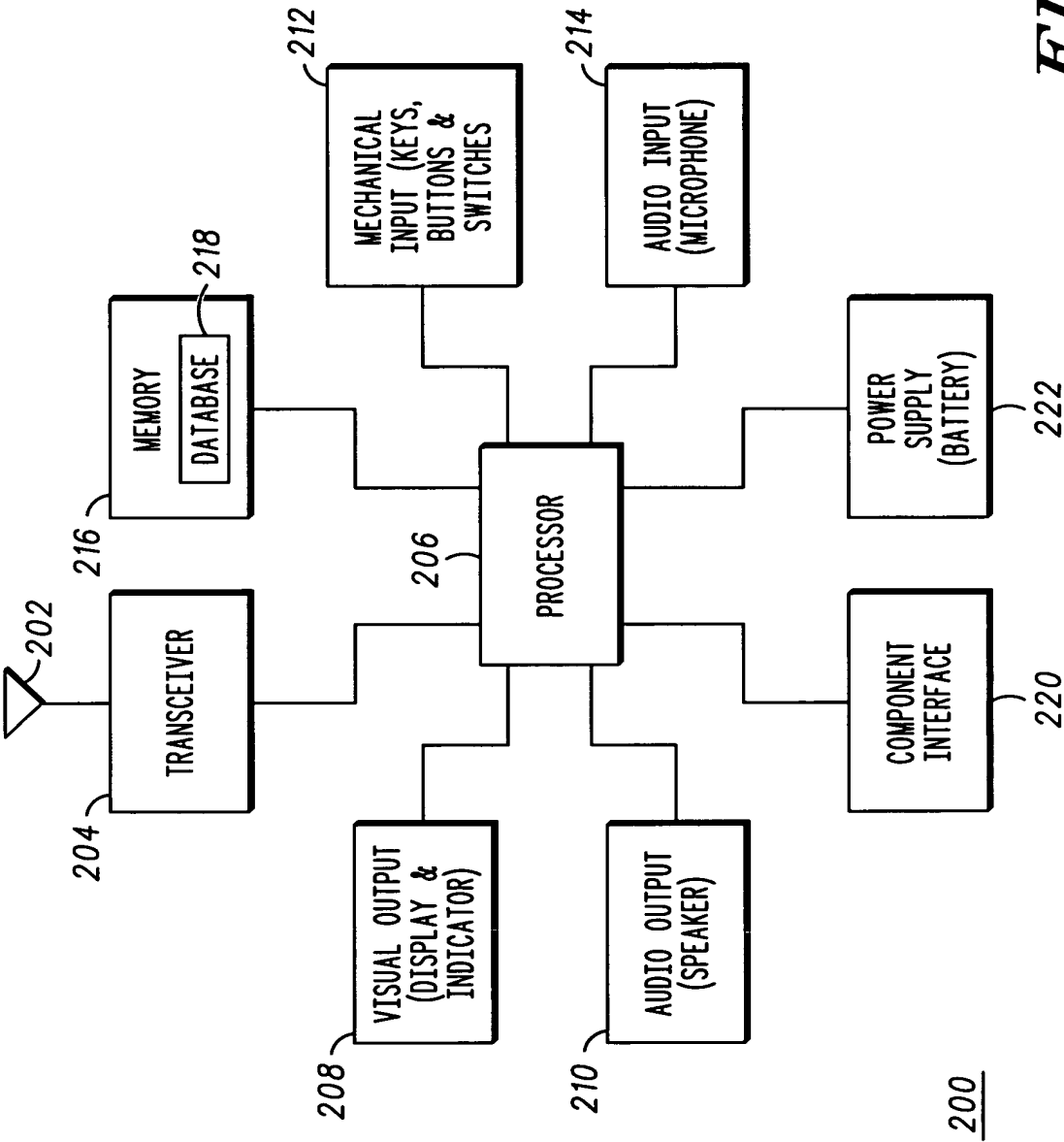
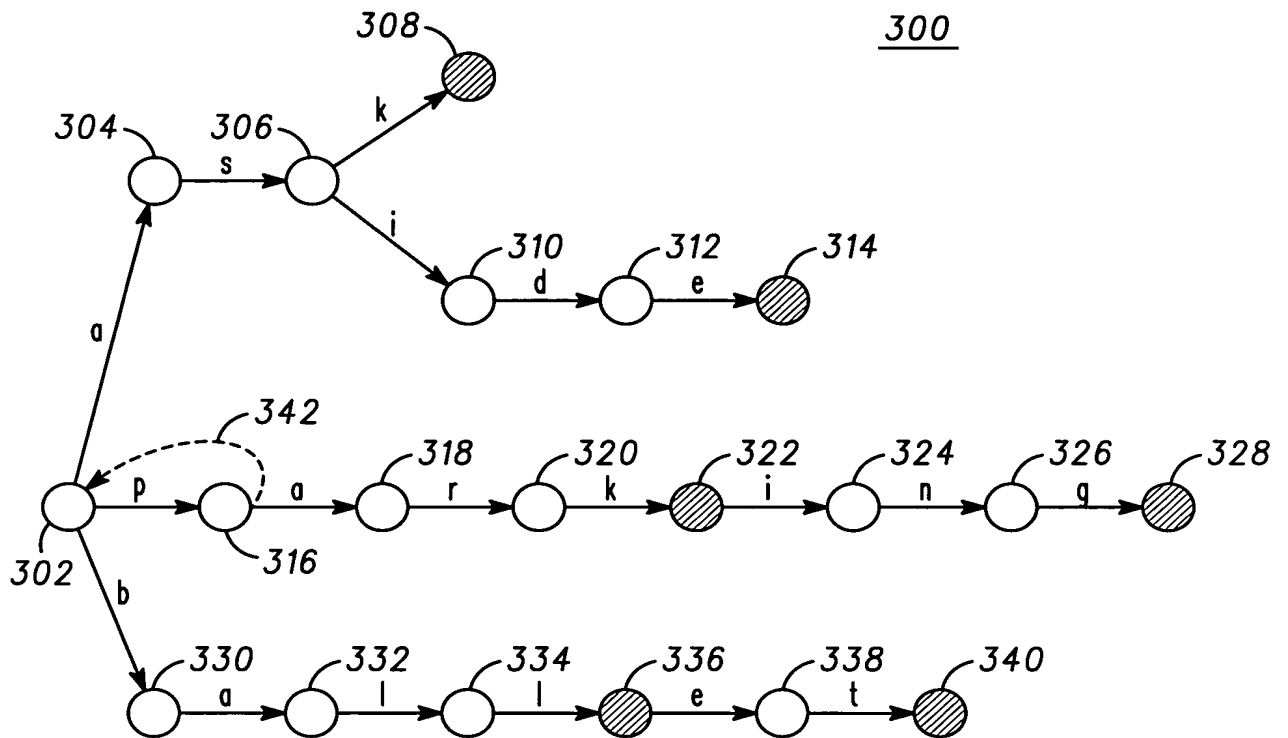


1/7





*FIG. 2*



**FIG. 3**

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```

402 — PredictCombinations (dictionary, input)
404 — 1. node[start] ← root[dictionary]
406 — 2. timesReset[start] ← 0
408 — 3. score[start] ← 0
410 — 4. string[start] ← ""
412 — 5. startNodes ← {start}
414 — 6. i ← 1
416 — 7. while i ≤ length[input]
    418 — a. allowedTransitions ← ResolveMapping(input[i])
    420 — b. hypotheses ← ∅
    422 — c. foreach x in startNodes
        424 — i. hypotheses ← hypotheses ∪ Move(x, allowedTransitions)
        426 — ii. ifIsComplete(x)
            428 — 1. node[temp] ← root[dictionary]
            429 — 2. string[temp] ← string[x]
            430 — 3. timesReset[temp] ← timesReset[x]+1
            432 — 4. score[temp] ← score[x] + Grade(node[x])
            434 — 5. hypotheses ← hypotheses ∪ Move(temp, allowedTransitions)
    436 — d. startNodes ← hypotheses
438 — 8. foreach y in startNodes
    440 — a. score[y] ← score[y] + Grade(node[y])
442 — 9. return startNodes

```

400

*FIG. 4*

```

502 — Move(startNode, allowed Transitions)
504 — 1. newNodes ← ∅
506 — 2. foreach e in allowedTransitions
    508 — a. node[temp] ← δ(startNode, e)
    510 — b. timesReset[temp] ← timesReset[startNode]
    512 — c. score[temp] ← score[startNode]
    514 — d. string[temp] ← string[startNode]+e
    516 — e. newNodes ← newNodes ∪ {temp}
518 — 3. return newNodes

```

500

*FIG. 5*

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```
602 — if (a.numTimesReset != b.numTimesReset)
    604 — return (a.numTimesReset < b.numTimesReset);

606 — if (endOfInput)
    {
    608 — first=complete(a);
    610 — if (first != complete(b))
    612 — return first;
    }

614 — if (score[a] != score[b])
    {
    616 — return (score1 > score2);
    }
```

600

***FIG. 6***

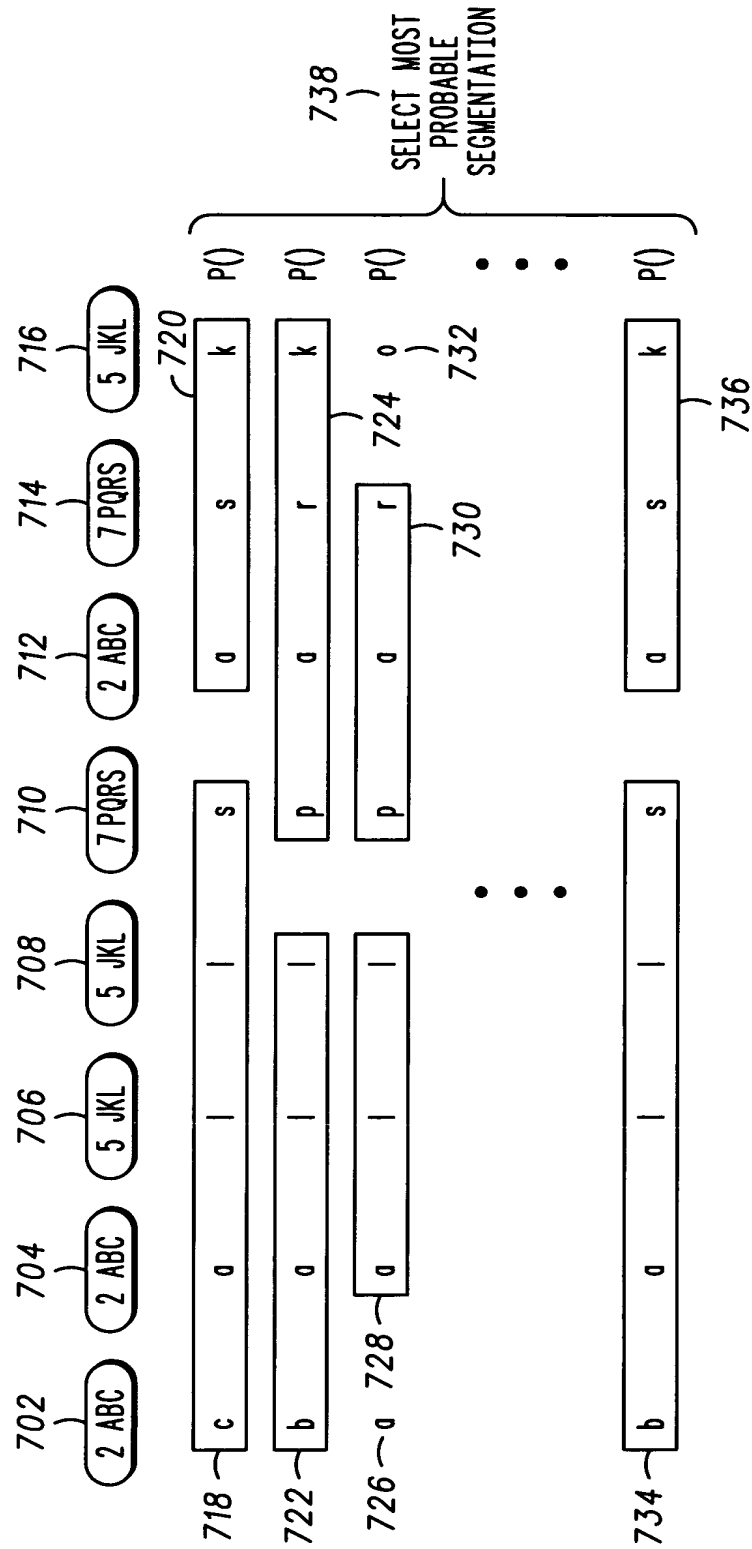


FIG. 7

802 WORD	804 CONSTITUENTS	806 SCORE (PROBABILITY)	808 RANK (SORT ORDER)	810 REASON FOR PLACEMENT	812 SAMPLE DICTIONARY
814 ballgame	ball game	$P(\text{ball}) + P(\text{game})$	1	well-formed, accumulative score of "ball" and "game" is higher than that of "call" and "hand"	ball game hand call all help 2u2 command code frantic classic
816 aallgame	a all game	$P(a) + P(\text{all}) + P(\text{game})$	3	worse than #1 and #2 in structure	
818 ballhcof	ball h co f	$P(\text{ball}) + P(h) + P(\text{co}) + P(f)$	4	worse than all others in structure	
820 Callhand	call hand	$P(\text{call}) + P(\text{hand})$	2	well-formed, accumulative score of "ball" and "game" is lower than that of "call" and "hand"	

FIG. 8